

APPLICATION
FOR
UNITED STATES LETTERS PATENT

TITLE: PARATHROID HORMONE RECEPTOR AND DNA ENCODING
Binding method
SAME

APPLICANT: GINO V. SEGRE, HENRY M. KRONENBERG, ABDUL-BADI
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AND ERNESTINA SCHIPANI

Rule
1.129
MOP
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"EXPRESS MAIL" Mailing Label Number EL010098548US

Date of Deposit November 24, 1998

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Anne Ruy

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BINDING METHOD

PARATHYROID HORMONE RECEPTOR AND ~~DNA ENCODING SAME~~

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Background of the Invention

Partial funding of the work described herein was provided by the U.S. Government, which has certain rights to the invention.

The invention relates to endocrine receptors.

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A crucial step in the expression of hormonal action is the interaction of hormones with receptors on the plasma membrane surface of target cells. The formation of hormone-receptor complexes allows the transduction of extracellular signals into the cell to elicit a variety of biological responses. For example, binding of a hormone such as follicle stimulating hormone (FSH), luteinizing hormone (LH), thyroid stimulating hormone (TSH), and chorionic gonadotropin (CG), to its cell surface receptor induces a conformational change in the receptor, resulting in the association of the receptor with a transductor molecule, the stimulatory guanine nucleotide (GTP) binding protein, a component of which is (G_s). This association stimulates adenylate cyclase activity which in turn triggers other cellular processes such as protein phosphorylation, steroid synthesis and secretion, and the modulation of ion flux.

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Binding of other hormones, including arginine vasopressin (VP), angiotensin II, and norepinephrine, to their cell surface receptors results in the activation of other types of GTP binding proteins components such as (G_p), which in turn stimulates the activity of the enzyme phospholipase C. The products of phospholipase C hydrolysis initiate a complex cascade of cellular events, including the

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PRO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Gino V. Segre et al. Art Unit:
Serial No.: Examiner:
Filed : HEREWITH
Title : PARATHROID HORMONE RECEPTOR AND DNA ENCODING SAME

Assistant Commissioner for Patents
Washington, DC 20231

PRELIMINARY AMENDMENT

Prior to examination, please amend the application as follows:

In the Specification:

Insert the following on page 1, before the first paragraph: -This application is a divisional of U.S. Application Serial No. 08/471,494, filed June 6, 1995, now U.S. Patent 5,840,853, and U.S. Application Serial No. 08/468,249, filed June 6, 1995, now U.S. Patent 5,886,148, both of which are divisionals of U.S. Application Serial No. 07/864,475, filed April 6, 1992, now U.S. Patent No. 5,494,806, which was a continuation-in-part of U.S. Application Serial No. 07/681,702, filed April 5, 1991, and now abandoned.--

In the Claims:

Cancel claims 2-5, 9, 13-19, 22 and 26-38.

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John Rees
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